

---

**Name of Organization:** USFWS

**Type of Organization:** Federal Agency

**Contact Information:** Mr. Kent Kroonemeyer

Division of Ecological Services

6950 Americana Parkway, Suite H

Reynoldsburg OH 43062

**Phone:** (614) 469 - 6923 **Extension:** 12

**Fax:** (614) 469 - 6919

**E-Mail:** kent\_kroonemeyer@fws.gov

---

**Project Title:** Lake Erie Water Snake - Radio Telemetry Study

**Project Category:** Habitat (Ecological) Protection and Rest

**Rank by Organization (if applicable):** 0

**Total Funding Requested (\$):** 51,200 **Project Duration:** 2 Years

**Abstract:**

The Lake Erie water snake (*Nerodia sipedon insularum*) was listed as a federally threatened species on August 30, 1999. It is found only in the western basin of Lake Erie; mostly on the islands with small numbers being found on the Ontario and Ohio mainlands. There is a need to gather additional life history information on the snake for two purposes. First, the additional life history information will aid in the speedy recovery of the species and its removal from the threatened species list. Second, this information will be of assistance to local government officials on the islands who issue building permits, establish zoning regulations, etc. by providing them information that will help them and residents to avoid violations of the Endangered Species Act.

The Study will have the following five objectives.

- (1) Locate and characterize hibernation sites used by adult snakes on the four largest Ohio Islands.
- (2) Characterize seasonal activity patterns of adult snakes, especially the timing of entry into and emergence from hibernation.
- (3) Characterize movement patterns of adult snakes throughout the active season.
- (4) Characterize the foraging behavior of adult snakes.
- (5) Locate and characterize sites used by female snakes when giving birth.



---

**Geographic Areas Affected by the Project****States:**

<input type="checkbox"/> Illinois	<input type="checkbox"/> New York
<input type="checkbox"/> Indiana	<input type="checkbox"/> Pennsylvania
<input type="checkbox"/> Michigan	<input type="checkbox"/> Wisconsin
<input type="checkbox"/> Minnesota	<input checked="" type="checkbox"/> Ohio

**Lakes:**

<input type="checkbox"/> Superior	<input checked="" type="checkbox"/> Erie
<input type="checkbox"/> Huron	<input type="checkbox"/> Ontario
<input type="checkbox"/> Michigan	<input type="checkbox"/> All Lakes

**Geographic Initiatives:**

<input type="checkbox"/> Greater Chicago	<input type="checkbox"/> NE Ohio	<input type="checkbox"/> NW Indiana	<input type="checkbox"/> SE Michigan	<input type="checkbox"/> Lake St. Clair
--	----------------------------------	-------------------------------------	--------------------------------------	---

**Primary Affected Area of Concern:****Other Affected Areas of Concern:**

---

***For Habitat Projects Only:*****Primary Affected Biodiversity Investment Area:** Western Lake Erie/Oak Openings**Other Affected Biodiversity Investment Areas:**

---

**Problem Statement:**

The majority of the snakes are found on the following islands in the western basin of Lake Erie; South Bass Island, Middle Bass Island, North Bass Island, and Kelleys Island. Except for North Bass Island, these islands are receiving increasing development pressures for homes, businesses, private docks, shoreline protection measures, new marina construction, expansion of existing marinas, and expansion of existing commercial docking facilities. All of these activities can either individually or in combination adversely impact snakes by loss of habitat or harm to snakes themselves. There are close to 1,000 landowners on these four islands and they all are impacted by the Endangered Species Act.

While local government officials are generally supportive regarding efforts to conserve the snake, they are concerned about violating provisions of the Endangered Species Act when issuing building permits, approving trenching activities, etc. They also are concerned about individuals citizens accidentally finding themselves in violation of the Endangered Species Act.

---

---

**Proposed Work Outcome:**

Acquisition of the needed life history information described in the five study objectives will accomplish two basic purposes. First, it will provide information that will shorten the time period needed for recovery of the snake population to a level that will enable it to be removed from the threatened species list. Second, it will provide life history information that will be useful to local governmental officials when issuing building permits, etc. The Fish and Wildlife Service and the Ohio Division of Wildlife will be able to use this information in assisting local governmental officials with their activities. Information such as exactly where the snakes hibernate, type of habitat where they likely do hibernate, areas where adult females give birth can be provided to local governmental officials and they then can avoid activities in these areas.

**Project Milestones:**

**Dates:**

Project Start

06/2000

/

/

/

/

/

/

Project End

06/2002

---

☐ Project Addresses Environmental Justice

**If So, Description of How:**

N/A

☒ Project Addresses Education/Outreach

**If So, Description of How:**

The Ohio Division of Wildlife and the Fish and Wildlife Service have jointly implemented an outreach program directed towards educating landowners and government officials about the Lake Erie water snake, its life history, threats to its existence, and things people can do to insure its preservation. This outreach program was initiated in 1993 and will continue for a number of years into the future.

The life history information which will be obtained with this radio telemetry study will be incorporated into the ongoing outreach program. The information will be made available to the general public, local government officials and others, and non-government organizations interested in conserving the snake. This information will be distributed by the use of news releases, periodic mass mailings to residents on the islands, meetings with local government officials, meetings with conservation groups, etc.

---

**Project Budget:**

	<b>Federal Share Requested (\$)</b>	<b>Applicant's Share (\$)</b>
<b>Personnel:</b>	25,900	9,900
<b>Fringe:</b>	1,000	400
<b>Travel:</b>	15,300	5,800
<b>Equipment:</b>	9,000	3,400
<b>Supplies:</b>	0	0
<b>Contracts:</b>	0	0
<b>Construction:</b>	0	0
<b>Other:</b>	0	0
<b>Total Direct Costs:</b>	51,200	19,500
<b>Indirect Costs:</b>	0	0
<b>Total:</b>	51,200	19,500
<b>Projected Income:</b>	0	0

---

**Funding by Other Organizations (Names, Amounts, Description of Commitments):**

The Ohio Division of Wildlife will contribute \$19,800 over the two year period of the study for which GLNPO funding is requested. This amount will be for the same budget factors as listed in (7) Project Budget for the Applicants Match.

The majority of the life history information will be conducted during the two year period June 15, 2000 to June 14, 2002. If needed, the Division of Wildlife and the Service are prepared to fund up to an additional 3 years of a scaled down effort from June 15, 2002 to June 14, 2005. The effort for these three years will cost \$10,000 each year and the two agencies will split the cost. The work anticipated for these three years would be followup work on specific sites, specific habitat types, protective measures for newly born snakes, etc.

---

**Description of Collaboration/Community Based Support:**

In 1994, the Fish and Wildlife Service and the Ohio Division of Wildlife initiated an outreach effort regarding the Lake Erie water snake which was directed mainly towards landowners and residents on the islands in the western basin of Lake Erie. The response from local government officials as well as landowners and residents generally has been supportive. After the Service listed the snake as a federally threatened species on August 30, 1999, local government officials indicated their continued support for the conservation of the snake. However, they have expressed concerns regarding the impact of this threatened species listing on landowners, individuals, and local government officials. They were particularly concerned about the impact on future zoning decisions, issuance of building permits (particular along the shoreline of the islands where the snakes spend spring, summer, and fall), trenching activities and the potential impact on hibernating snakes, etc.

The information which will be collected during this study will help the Service and the Division of Wildlife in their interaction with local governmental officials. It will provide life history information such as where exactly the snakes hibernate, what kinds of habitat the snakes use for hibernation, where pregnant females go to give birth, etc. This type of life history information will be valuable for local government officials in making their decisions regarding development activities on the island.

On November 27, 1999, Mayor Bill Minshall, Kelleys Island, Ohio sent a letter to Congressman Paul Gillmor supporting Congressional support for funding this study.

The need for this life history information is one of the proposed projects which will be listed in the soon to be released Lake Erie Lakewide Area Management Plan.

Also, there is a growing interest among the people on the islands regarding the stewardship of the natural resources including the conservation of the snake.